

THEME ISSUE

Cultural Sensitivity and Global Pharmacy Engagement in the Caribbean: Dominica, Jamaica, Puerto Rico, and St. Kitts

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Submitted June 21, 2018; accepted April 18, 2019; published May 2019.

Sustainable and reciprocal partnerships in pharmacy education and practice exist between schools and colleges of pharmacy in the United States and Caribbean countries and territories. This paper discusses the cultural considerations for such partnerships to flourish. First, general information on Caribbean countries and territories is covered. Next, the paper transitions into how to ensure culturally sensitive engagements when traveling to or hosting visitors from the Caribbean. This paper is intended to assist practitioners with integrating culturally sensitive considerations into the development of partnerships in this region.

Keywords: Caribbean, Dominica, Jamaica, Puerto Rico, St. Kitts, global engagement, cultural competency, cultural sensitivity

INTRODUCTION

Global engagement between schools and colleges of pharmacy in the United States and their counterparts in the Caribbean has strengthened in recent years. As the concept of global pharmacy education has spread, US schools and colleges of pharmacy have expressed interest in forming partnerships with schools and colleges in the Caribbean.¹ Although accreditation standards for pharmacy curricula are not required in the Caribbean, the Pan American Health Organization (PAHO) does provide service competency guidance and refers to resources available from the International Pharmaceutical Federation (FIP).² The PAHO “assists Member States...in the formulation, implementation, and evaluation of pharmaceutical policies as part of their health policies in order to guarantee equitable access to quality essential medicines and to promote their rational, evidence-based use by health professionals and the community.” To facilitate this, the Pan American Conference on Pharmaceutical Education (PCFE), established in 1990, encourages participation by regional delegates to promote cooperation among pharmacy schools in the Americas.³

Definitions of the composition of the Caribbean differ. In some groupings, the Caribbean is combined with

Latin America.¹ In general, the defined Caribbean extends from the north shores of South America to the Bahamas near the coast of Florida. The eastern edge of the Caribbean is lined by the North Atlantic Ocean and the western edge by Central America.² The composition of the Greater Antilles, Lesser Antilles, Leeward and Windward Islands, as well as a definition of the insular Caribbean, are given in Table 1.⁴⁻⁷

This paper focuses on the islands of Dominica, Jamaica, Puerto Rico, and St. Kitts and Nevis. As shared above, although definitions of the Caribbean vary, these islands are contained within all described categorizations. The culture of the Caribbean is diverse and represents the blending of history. Thus, to be culturally competent regarding the Caribbean, guests must recognize that the history of this region includes different degrees of influence from African, French, Spanish, British, and Dutch cultures. The islands selected were included to highlight various predominant cultural influences (British, French, and Spanish) in this region. The islands were also selected based on the presence of existing partnerships between institutions within the countries and US institutions. Additionally, local and US content experts on each of the islands included were identified to provide further insights when literature was limited. Each island is representative of the common economic challenges faced in the Caribbean, has historical influences from various colonial powers, relies to some degree on support from

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Table 1. Caribbean Island Groupings and Countries⁴⁻⁷

Caribbean Island Subsets or Groupings	Representative Composition
Greater Antilles ^{4,6,7}	Cuba Dominican Republic Haiti Jamaica Puerto Rico
Lesser Antilles ⁴⁻⁷	Anguilla Leeward islands: Antigua and Barbuda, Montserrat, St. Kitts and Nevis, Saba, St. Eustatius, St. Barthelemy, and St. Martin Windward islands: Dominica, Grenada, Guadeloupe, Martinique, St. Lucia, St. Vincent and Grenadines
Insular Caribbean ^{6,7}	US and British Virgin Islands Caribbean Sea The Lesser and Greater Antilles islands US and British Virgin Islands Barbados Trinidad and Tobago Netherlands Antilles (Aruba, Bonaire, and Curacao)

foreign government and non-government organizations, and has health system challenges as well as opportunities for engagement and partnerships. General information and specific recommendations for culturally sensitive global outreach for students and educators engaged with or hosting visitors from the Caribbean are provided. The goal of this paper is to help in the establishment of sustainable and reciprocal partnerships between US schools and colleges of pharmacy and Caribbean islands or organizations.

METHODS

The general methodology used in this paper is described in the introduction paper for this special issue.⁸ The searches conducted used terms specific to the Caribbean islands highlighted in the paper, or the Caribbean in general, and were combined with terms related to cultural considerations needed when engaging in global pharmacy outreach in the Caribbean or hosting students and faculty members from the Caribbean. In addition, relevant regional organizations such as the Pan American Health Organization (PAHO) were also searched. Further, local experts and US faculty members with experience in global outreach in the region were solicited for input.

RESULTS

Influences on the Caribbean Culture

Influence of Colonization on Caribbean Economies.

When pursuing reciprocal relationships with Caribbean partners, individuals must first understand the region's

past. This includes the historical influence of colonization by the British, French, and Spanish. After these settlers arrived, natives often were enslaved or killed.⁹ Conquering nations then forged economies largely based on slavery and the plantation system.⁹ The British colonized Dominica, which was considered to be "the last of the Caribbean islands colonized by European influence," perhaps because of its mountainous terrain.^{10,11} Here, the indigenous population, known locally as the Kalinago or Caribs, continues to reside in the Northeast part of the island.¹² Similar to Dominica, in St Kitts and Nevis, the islands were ruled by the British, with a portion being ruled temporarily by the French.¹¹ In Jamaica, Spanish settlers exterminated the native islanders or Taino, and brought African slaves to produce crops within a plantation system. The British later took control of the island until the time of independence. Under their rule, slave labor eventually was abolished and replaced by workers, primarily imported from China and India. The workers were employed at minimal wages and given long-term contracts, which were described as lower wage apprenticeships.¹³⁻¹⁵

In Puerto Rico, as in Jamaica, the Spanish decimated the native population (Indios Tainos) and replaced them with African slave labor.¹⁶⁻¹⁸ Spanish influence predominated until 1898 when the island became a US territory. Later in 1917, islanders were granted US citizenship. However, Puerto Ricans are still subject to rules and governance that differ from those of the mainland United States. For example, residents are subject to US Federal law but do not have voting representation in Congress. The island operates very similarly to a state but is instead a

territory that is subject to the jurisdiction and sovereignty of the United States, but not able to vote on federal issues and does not have electoral votes in Presidential elections.¹⁶⁻²¹

Colonization influenced the structure of the current day government of most Caribbean islands. The duration of government control may have impacts on partnerships, collaboration, or involvement of foreign practitioners, and funding challenges that can impact health care reform or limit health initiatives.^{9,22} The government of those islands that more recently gained independence may have a structure that more closely resembles that of their former colonial powers.²² Many Caribbean islands have constitutions that are based on the parliamentary system of government. These constitutions were introduced by the British, with little input from the Caribbean people. Some islands have begun to undergo constitutional reform as their duration of independence lengthens.²³ Most Caribbean islands described in this paper gained independence in the past 50 years, with the exception of Puerto Rico, which remains a territory of the United States.^{10-12, 18, 21, 24-28} Democratic elections are held every five years in Dominica, Jamaica, and St. Kitts and Nevis.^{10-12,24-28} Other ministers of government, such as Ministers of Health, are appointed on the advice of the Prime Ministers.²⁷⁻³⁰

Beyond the development of infrastructure, colonial rule often affected the basis of the economies of the Caribbean. With freedom from colonial rule and the abolishment of slavery, the economies of islands such as Dominica, Jamaica, and St. Kitts and Nevis transitioned away from an almost complete reliance on agriculture to a focus on other opportunities such as tourism, offshore banking, programs where foreigners obtain citizenship by financial investment, exportation of bauxite/alumina, which is made into aluminum, and the formation of economic partnerships.^{13,24,26-31} However, despite the shift in economies, the gross domestic product (GDP) per capita of many Caribbean nations remains substantially lower than that of the United States and other nations with which the islands have partnered and have diplomatic relations.³²⁻⁴²

An increased need for support from other nation states has expanded in recent years because of natural disasters. In 2017, a category 5 hurricane directly hit Dominica and Puerto Rico. St. Kitts and Nevis were also struck by a hurricane in 2017 that caused severe damage and required multinational efforts (eg, medical relief, volunteerism) to restore infrastructure.⁴³⁻⁴⁹ Natural disasters have underscored the need to develop climate resilient practices and disaster relief measures (eg, response and preparedness plans) into the health care infrastructure of these islands.⁴³⁻⁵³ Islands were affected by these disasters

to different extents based upon their economies, size, and infrastructure. Of the islands included in this paper, Dominica and Puerto Rico are discussed with regard to the impact of natural disasters on their health care infrastructures.^{52,53}

Influence of Colonization on Language. The languages of the Caribbean as a region are unique to each island and based on dialects, which are a blend of local influences and the languages of the foreign colonizers.⁵⁴ In Puerto Rico, both Spanish and English are official languages. In contrast, in Dominica and Jamaica, English is their official language. Additionally, in some Caribbean islands, Dutch and Dutch Creole as well as Papiamentu (a mix of Portuguese and Dutch) are spoken, but islands that speak this mix of language were not included in this paper.

Beyond the formally recognized languages highlighted above, Creole or local patois, is spoken by more than 75 million people throughout the Caribbean. The majority of Caribbean people also speak a second language, typically that of the former colonial power.⁵⁵⁻⁵⁹ Variations of Creole have existed in the Caribbean for over 200 years, but were mainly oral and not written languages.^{59,60} Thus, a standardized orthography and consistent grammar is often not observed.⁵⁷ Creole has never been formally used in education in many of the islands. One of the reasons cited for this are the negative perceptions of the language by some educators, policymakers, and the public.^{57,58} Thus, there are concerns that the indigenous languages are at risk of disappearing.^{58,61} Orthography workshops have attempted to document the language to prevent this from occurring and have noted variances in dialects and phrasing between islands and also among villages within the islands.^{54,59} For example, in St. Lucia, Dominica, and Haiti, the Creole language is very similar, although accents and some phrases differ.^{61,62}

In Puerto Rico, an innovative blend of Anglicized Spanish and English, the Costumbrismo dialect, may be interpreted as another Creole language.^{19,63,64} This dialect was inspired by indigenous or Taino people and Africans, and emerged in the 16th to 19th centuries with new meanings, rhythms, and tones.¹⁸ As an example of this language, the letter ~n and the “s” sound at the end of words are commonly omitted and the final “r” and “l” syllables are neutralized.^{64,65} These differences in language are important to recognize in cultural collaborations as differences in pronunciations, slang, and derivation of meanings can result in miscommunication. In addition, language spoken by patients and collaborators may differ and the level of understanding of each language may vary.

Diet. Food is an important social and cultural aspect of the Caribbean.^{66,67} Cleanliness and hygiene in food service is now publicly regulated. Some subcultures

(eg, Rastafarian culture) have special dietary needs. For example, a way of eating called *ital* includes a diet of fresh, organic, and homegrown foods. Additives are avoided and meat is not eaten due to respect for animal life.⁶⁷

The size and timing of meals in the Caribbean may differ from that in the United States. Breakfast is larger than that in the United States and dinner is often smaller. In Dominica, for example, breakfast and lunch are larger meals and may traditionally include salt fish and bakes (fried dough). Lunch dishes also include seafood or one-pot meals such as callaloo soup. Many meals feature what is referred to as provisions, which are root crops such as yams and tannias (a root vegetable with pear shaped tubers and arrow-shaped leaves). Typically, fresh juices, coconut water, and fresh water are readily available. For hot drinks, coffee, cocoa tea, and local bush teas are consumed. Dinner is generally a smaller meal.⁶⁶⁻⁷²

Safety. The safety of visitors in pursuit of engagements in the Caribbean is as important as it is in any other region of the world. For the majority of islands in the Caribbean, travel is generally safe. On the US Department of State website, out of the islands included in this paper, crime is only listed as a concern in Jamaica.⁷¹ However, prior to visiting any foreign country, travelers should exercise caution and consult resources such as the US Department of State website for current travel advisory warnings and the reasons for any alerts. Additionally, they should review the Center for Disease Control (CDC) website for health-related considerations which may impact the risk of illness or disease while traveling.^{70,71}

Health Issues/Health Care System. Life expectancy in the Caribbean has risen over the past 35 years, but it remains below that of North America and Western Europe. Life expectancies in Dominica, Jamaica, and St. Kitts and Nevis are 77.2 years, 73.7 years, and 75.9 years, respectively, compared to that of Puerto Rico, a territory of the United States, at 80.9 years.^{8,13,14,25} Economic indicators and growth are tied to resource availability and income, which can influence health.⁷² Health disparities still exist in use of services, with larger gaps present based on income.⁷²

Political infrastructure is recognized as an important influence on the health status of people in the Caribbean.⁷³ The larger the share of government expenditures directed to health care, the lower the differences are between use of health care services and income level.⁷³ Infrastructure factors that impact health include policies affecting labor and housing, and public provisions that influence personal and household welfare. Challenges have existed with linking traditional epidemiological data sources (eg, vital records, health registry) with reliable data on infrastructure. An example of this would be linking living

conditions, health, and health service use to further study their effects on health in the Caribbean.^{72,74} The PAHO promotes studies and projects aimed at increasing knowledge of health inequalities, identifying determinants, and developing and evaluating interventions that address disparities.⁷²

The relationship between international migration and health status in the Caribbean is evident. Migrant populations have worse health outcomes and less access to health services.⁷² “Brain drain” among health care providers resulting from an insufficient number of health care workers has further affected the delivery of modern health care in the Caribbean.⁷ In Puerto Rico, economic hardships and high costs of living have reduced health professionals’ desire to remain on the island. An article Perreria discussed an estimated a 12% increase in the average cost of living as compared to living on the US mainland. The need to import products also may have contributed to the increased costs of health care supplies, equipment, and services in Puerto Rico.⁷⁵ Currency devaluation has created favorable export conditions, which in turn has affected the local price of goods, driving out local business and increasing unemployment.⁷

Soyibo and colleagues described chronic non-communicable diseases as a major financial challenge in the Caribbean. Thus, health care has historically focused on the delivery of preventative care. Examples of common non-communicable diseases prevalent in Dominica, Jamaica, Puerto Rico, and St. Kitts and Nevis include hypertension, diabetes, asthma, and chronic kidney disease.⁷⁵⁻⁷⁷ Challenges also exist in the management of mental health conditions in many of the islands.⁷⁸⁻⁸⁴

Infectious diseases also have affected Caribbean countries. In 2006, the Joint United Nations Program reported that the Caribbean had the second highest prevalence of Acquired Immunodeficiency Syndrome (AIDS) in the world.⁸⁵ In addition to the presence of AIDS, other notable communicable diseases include vector borne illnesses such as Zika, Chikungunya, and Dengue. Also, risks of infection from water or food contamination such as typhoid have been observed.^{70,86-88} Post hurricane conditions exacerbate the prevalence of these diseases as well as that of chronic conditions.^{50,53}

A majority of the health care delivery to manage communicable and noncommunicable diseases, whether in disaster situations or more stable times, are overseen in most Caribbean islands by a ministry of health (MoH).²⁷⁻³¹ With regards to drug regulation, the Caribbean Regulatory System began operations in 2013 as a collaborative initiative of the Caribbean Community and Common Market (CARICOM) within the Caribbean Public Health Agency. Partners such as the PAHO and the World Health

Organization (WHO), as well as private organizations such as the Bill and Melinda Gates Foundation, supported the development of this drug oversight entity. Legal authority was obtained by a public health mandate, a Caribbean Pharmaceutical Policy, and support from the MoH of each member island.⁸⁹ Further, the WHO monitors and reports on the status of the practice of pharmacy in the Caribbean.⁹⁰ A description of each country and factors that have implications for the respective health systems and pharmacy services for the islands highlighted in this paper are included in Tables 2-5.^{13,21,24,25,86,91-118,120}

Pharmacy Education and Organizations. Approximately 10 pharmacy training programs and colleges exist in the Caribbean (Table 6).^{112,121-129} Program offerings vary from technician training to masters or Doctor of Pharmacy (PharmD) training programs. Of the islands

highlighted, Jamaica and Puerto Rico have the largest number of programs offered. The training program in Dominica has been offered occasionally when there is sufficient student interest and enrollment. No formal program was found for training of pharmacists or pharmacy technicians in St. Kitts and Nevis.^{111,121-128} Tables 2-5 provide further details and information regarding US schools and colleges of pharmacy offering advanced pharmacy practice experiences (APPEs) through collaborations with partners on the islands highlighted in this article.^{94,95,112-115,118}

After completing their formal education, opportunities for regional involvement and continuing professional development exist for pharmacists throughout the Caribbean. The Caribbean Association of Pharmacists (CAP) began in Kingston, Jamaica in 1976. The organization has

Table 2. Caribbean Island Snapshot: Dominica^{24,86,91-95}

Summary Area	Specific Details
General information	Capital: Roseau ²⁴ Population: ~73,000 ⁸⁶ Population trends: 0.18% growth rate - 184 th in the world; net migration -5.4 migrants/1,000 ²⁴ GDP ^a : \$12,000 ²⁴ Life expectancy: 77.2 years ²⁴ Infant mortality: 10.6/1,000 live births ²⁴ Unique travel considerations: Voluntourism opportunities available; Tourism focus is based on ecotourism; Member of CARICOM ^{b,24,86}
Health centers ⁹¹	Organized into seven districts and grouped by geographical regions of the island Provide access to 600 to 1,000 persons living within 5 miles of each clinic
Hospitals ⁹¹	Two hospitals exist
Cost of care ⁹¹	A hospital payment system or fee schedule exists based upon care level received with financial assistance for patients who cannot afford care
Medication access ^{91,92}	Public sector: Primary care is available to residents at no charge; Member of the OECS PPS ^c (Provides countries with reduced costs of medications, regulations, and oversight to improve access) Private sector: A larger array of medications and supplies are available
Pharmacist education ⁹²	Pharmacists are often educated at regional schools/colleges, Cuba, or on the mainland US
Pharmacist regulation of practice ⁹¹	Certification granted by the Dominican Medical Board to practice Foreign practitioners must document posting of position, education, residence, background checks, and completion of associated requirements of a work visa Laws/regulations for pharmacy practice are located in the Dominica Medical Act (Chapter 39:02)
APPE ^d	
University of Iowa College of Pharmacy ⁹⁴	APPEs provide exposure to private and public health settings Activities focus on development of sustainable partnerships in health education/promotion Offered in conjunction with a private pharmacy
University of Washington College of Pharmacy ⁹⁵	

^a GDP=Gross Domestic Product

^b CARICOM=Caribbean Community and Common Market

^c OECS PPS=Organization of Eastern Caribbean States Pooled Procurement Service

^d APPE=Advanced Pharmacy Practice Experience

Table 3. Caribbean Island Snapshot: Jamaica^{13,77,96-115}

Summary Area	Specific Details
General information	<p>Capital: Kingston¹³</p> <p>Population: 2,793,000⁸⁶</p> <p>Population trends: 0.68% growth rate -145th in the world; net migration -4.3 migrants/1,000¹³</p> <p>GDP^a: \$26.2 billion¹³</p> <p>Life expectancy: 73.7 years¹³</p> <p>Infant mortality: 12.8 deaths/1,000 live births¹³</p> <p>Unique travel considerations: Major seaports serviced by cruise ships: Montego Bay and Ochos Rios; Several airlines and airports available¹³</p>
Health centers ⁹⁶	350 health centers
Hospitals ⁹⁶	<p>23 public hospitals, including the semi-public University Hospital of the West Indies and 10 private hospitals</p> <p>Six specialty hospitals cater to maternity, children, cancer, rehabilitation, mental health and respiratory disorders</p> <p>Bustamante Children's Hospital is the only pediatric hospital in the English-speaking Caribbean (built in 1963)</p> <p>Victoria Jubilee Hospital remains the largest maternity hospital in the region (built in 1887)</p>
Cost of care	<p>Removal of fees to receive care or services in public health facilities: 2007 for children <18 years; 2008 for all of the public⁹⁷</p> <p>No payment required for services in public health facilities (eg, doctor visits, diagnostic services, hospital admissions, surgeries, medications, physiotherapy, ambulance and maternal services)^{96,98}</p> <p>Government programs (NHF^b) provided financial support to ensure access to quality, effective and affordable health care⁹⁸</p> <p>Private health insurance programs have decreased.⁹⁶ A major example is Sagicor Life from Guardian Life⁹⁸</p> <p>Government health insurance (for public employees/pensioners): provided in collaboration with private insurers (eg, Government Employees Administrative Services Only and the NHF Gold plans)^{96,98}</p> <p>5.2% to 5.4% spending on health section from the national GDP^{a,77,99,100}</p>
Medication access	<p>NHF^b card: provides drugs for 16 chronic illnesses; access to over 900 prescription drugs, diabetic supplies, and subsidizes other medically prescribed items¹⁰¹</p> <p>JADEP^c: offers medications free of charge for 10 chronic illnesses, for persons over 60 years of age¹⁰¹</p> <p>Drug Serv program: provides affordable medications and lowers prices in the private sector market¹⁰⁰</p> <p>A national drug list or formulary of approximately 500 medications exists¹⁰¹</p> <p>Information on drug usage may not be systematic or organized¹⁰¹</p> <p>A dangerous drug act exists pertaining to possession of ganja (marijuana, cannabis sativa) and its use by Rastafarians, and for medical, therapeutic, and scientific purposes^{99,100,102,103}</p> <p>Out-of-pocket spending for medical care is considered high^{104,105}</p>
Pharmacy practice and regulation	<p>Established of regulation: by the Pharmacy Council of Jamaica¹⁰⁶</p> <p>Pharmacy act establishes regulation of pharmacy practice¹⁰⁸</p> <p>Oversight: by the Ministry of Health with measures in place to ensure quality⁹⁷</p> <p>Public/Private Sector: public/private health sectors overlap (ie, medical professionals often work in both sectors)⁹⁷</p> <p>Adequacy of pharmacist workforce: manpower of health professionals has been in chronic shortage¹⁰⁹</p> <p>Cited reason for inadequacy of pharmacist workforce: low pay, poor working conditions and limits to advancement. Migration of professionals to other countries is common¹⁰⁸</p> <p>Workforce solutions: contractual agreements with Cuba, Nigeria, and Ghana to provide personnel</p> <p>Workforce implications: pharmacies' ability to comply with pharmacist staffing; enhanced quality of recent training</p>

(Continued)

Table 3. (Continued)

Summary Area	Specific Details
Accreditor of medical education continuing education	National Council for Continuing Medical Education ¹⁰⁷
Accreditor of pharmacist continuing education	Pharmacy Council of Jamaica ¹⁰⁸
Pharmacist training available on island ^{109,110}	University of the West Indies Medical School - Mona Campus: In 2016, started the first entry level Doctor of Pharmacy degree in the Caribbean The University of Technology, Jamaica, School of Pharmacy: Has offered programs for over 50 years; Offers certificate, bachelor, masters, and doctoral programs including a Pharmacy Technician program, Bachelor or Post-Diploma Bachelor of Pharmacy, Bachelor of Science in Pharmaceutical Technology, Masters in Pharmaceutical Sciences, and a Post-Baccalaureate Doctor of Pharmacy
Current APPE ^d	University of Iowa College of Pharmacy: ¹¹² APPEs offered with the Issa Trust Foundation. University of Buffalo: ¹¹³ Program appears to relate to research by Charles L. Anderson, MD, and Gene D. Morse, PharmD Southern Illinois University in Edwardsville: ¹¹⁴ Medical mission to Montego Bay that is interprofessional with dental colleagues University of the Sciences: ¹¹⁵ Interprofessional medical mission along with Women of Health Occupation Promoting Education

^a GDP=Gross Domestic Product

^b NHF=National Health Fund

^c JADEP=Jamaica Drugs for the Elderly Programme

^d APPE=Advanced Pharmacy Practice Experience

worked to “advance the development and empowerment of people of the Caribbean through excellence in the provision of all aspects of pharmacy practice.” The CAP has also sought to “unleash the potential of Caribbean pharmacists to contribute to the growth and development of the region.” An annual meeting for the organization is held within the Caribbean and a journal is published.¹²⁹ Notably, the CAP has advocated for shared minimum standards (degree based) across the Caribbean for pharmacist education in order to promote or establish free movement of pharmacists within the region.¹³⁰

The islands included in this paper have participated in efforts to centralize regional resources such as partnerships for delivery of higher education (eg, the University of the West Indies). These relationships have facilitated access to educational opportunities to pursue training that increases available care and development of infrastructure. Specific to pharmacy, access to training, has implications for the preparation of a global pharmacy workforce. Beyond education, these relationships historically emphasized the development of shared policies. They have facilitated cooperation and coordination of resources through organizations such as the CARICOM and the Organization of Eastern Caribbean States (OECS), formed in 1981. The OECS offers member islands a pooled procurement process for medications that

increases the islands’ purchasing power and allows for greater access to and availability of medications.¹⁰

Stereotypes and Misconceptions

A common image of the Caribbean islands is a that of a picturesque paradise where carefree locals spend their days on the beach, sipping exotic drinks and relaxing in the sun.⁵³ These stereotypes are often perpetuated by television commercials for travel companies and based on tourists’ limited exposure to the day-to-day life and experiences of the people who live on the islands they visit.¹¹⁰ One student who spent some time in the Caribbean later remarked, “I assumed that in the Caribbean everyone was nice to one another. I thought that everyone loved their lifestyle and would not change it for anything in the world.” Being exposed to ethnoracial issues, class diversity, and other challenges of daily life in the Caribbean, as well as learning about Caribbean history may challenge these and other misconceptions.¹³²

Taking the time to research the history and culture unique to individual Caribbean island will reveal that each is home to people with diverse backgrounds and social statuses. The islands are not just sandy beaches. Instead, each island has a unique geography that impacts the local economy and where people choose to live, from the lowlands in Puerto Rico to the rugged mountainous

Table 4. Caribbean Island Snapshot: Puerto Rico^{21,75,114,116-118}

Summary Area	Specific Details
General information ²¹	<p>Capital: San Juan</p> <p>Population: 3,351,827</p> <p>GDP:^a \$127.3 billion</p> <p>Population trends: -1.74%; -16.9 migrants/1,000</p> <p>Life expectancy: 80.9 year^s</p> <p>Infant mortality: 6.4 deaths/1,000 live birth^s</p> <p>Unique travel considerations: Commonwealth of the US – US citizens do not need a passport to travel to the island but cruise ships traveling to multiple islands will require passports; Much of the population clustered around San Juan and interior around Caguas</p>
Health centers ¹¹⁶	<p>Primary health centers exist in municipalities and serve as a “gateway” to other services</p> <p>Recent hurricanes have further decreased the adequacy of services and infrastructure</p>
Hospitals ¹¹⁶	12 public hospitals; 55 private hospitals
Cost of care - historical perspective	<p>US federal funding for health services is provided¹¹⁶</p> <p>Islanders spent increasing amounts on health services from 1990 to 2000</p> <p>Puerto Rico has had a strong public health system focused on both sanitation efforts and disease prevention⁷⁵</p> <p>Health care was a basic human constitutional right until the 1970s⁷⁵</p> <p>Providers have shifted from public to private practice⁷⁵</p> <p>Ninety-four percent of Puerto Rico citizens have some form of insurance¹¹⁶</p> <p>PROMESA^b enacted to help with the financial crisis⁷⁵</p> <p>Limited funds available to fund programs and provide timely payments to providers⁷⁵</p> <p>The Puerto Rico Health Insurance Administration and US Centers for Medicare and Medicaid Services are attempting to devise monthly payment plans to ensure that health care providers are paid in a timely manner⁷⁵</p>
Public insurance	<p>Few federally qualified health centers to remain to provide care to low income people⁷⁵</p> <p>Ninety-four percent of Puerto Rico citizens have some form of insurance¹¹⁶</p> <p>014: efforts made to shift to publicly funded insurance (eg, Puerto Rico Medicaid and Children’s Health Insurance Program, Puerto Rico Medicare Advantage program, traditional Medicare program, and Veteran’s Affairs)⁷⁵</p>
Private insurance	Many beneficiaries are covered under private insurance with many carriers ¹¹⁷
Health care reform	Reform: “ <i>La Reforma</i> ”: Occurred in the 1990s; dismantled public municipal diagnostic and treatment centers; converted public hospitals and offices to private sector for-profit or non-profit modalities ⁷⁵
Medication access/cost	<p>20% of prescriptions account for 80% of all drug costs¹¹⁶</p> <p>Causes of high costs of prescription drugs:⁷⁵</p> <p>Only one pharmaceutical wholesale distributor exists on the island</p> <p>Inability of residents to enroll in low income subsidies through Medicare has limited access to financial assistance for prescriptions. Medication non-adherence may result to ensure supplies last longer⁷⁵</p>
Pharmacist regulation of practice ^{116,117}	<p>2,428 pharmacists were registered in 2007</p> <p>More than a thousand pharmacies were licensed through the Secretariat for Regulation and Accreditation of Health Facilities</p>
Other health care challenges ⁷⁵	<p>Poor economic conditions and high cost of living have contributed to young health care professionals leaving the island to live on the mainland US</p> <p>Data suggests availability of health care professionals (eg, physicians, dentists, nurses and pharmacists) may be adequate but distributed unevenly throughout the island. This results in lack of access to care in some areas</p>
Current APPEs ^c	Webpage no longer accessible. Contact COP ^d for further details
University of Michigan College of Pharmacy ¹¹⁸	
University of Maryland School of Pharmacy ¹¹⁴	

^a GDP=Gross Domestic Product

^b PROMESA=Puerto Rico Oversight, Management, and Economic Stability Act

^c APPE=Advanced Pharmacy Practice Experience

^d COP=College of Pharmacy

Table 5. Caribbean Island Snapshot: St. Kitts and Nevis^{24,25,117,120}

Summary Area	Specific Details
General information	Capital: Basseterre ²⁵ Population: 56,000 ⁸⁸ Population trends: 0.73% - 142 nd in the world; net migration 1.2 migrants/1,000 ²⁵ GDP ^a : \$1.528 billion ²⁵ Life expectancy: 75.9 years ²⁵ Infant mortality: 8.4 deaths/1,000 live births ²⁵ Unique notes: Smallest Caribbean island in the Americas & Western Hemisphere; coastlines in the shape of baseball and bat separated by a channel ²⁴
Health centers ¹²⁰	The Ministry of Health organizes delivery of health services into: Office of Policy Development and Information Management, Community-based Health Services, and Institution Based Health Services Health care provided through 11 health centers in St. Kitts and six in Nevis with a clinic within approximately 3 miles of every household
Hospitals ¹²⁰	A 150-bed hospital exists within St. Kitts and a 50-bed hospital within Nevis
Cost of care	Alternative sources of health care financing have been attempted such as fees for service and private-public partnerships ¹²⁰ Reported health spending was 5.6% of GDP ^{a,117} No national health coverage exists Vulnerable populations do not have to pay fees ¹²⁰ No incentives exist for residents to purchase private health insurance ¹²⁰
Medication access ¹²⁰	Member of the OECS ^b Drugs distributed to the public through pharmacies by a Central Drug Purchasing Unit Only four pharmacies exist within the private sector Medication dispensing limited to only pharmacists through existing laws Before 2006: Medications could be obtained at public pharmacies for free Since 2006: Nominal out of pocket fees introduced due to rising drug prices, to promote cost sharing, and reduce the public financial burden
Pharmacist Education/Regulation of Practice ¹²⁰	A Ministry of Health oversees health services Two separate Ministries of Health exist, one on each island Medical practice regulated through the Medical Act Grant
Medical Professional Education ¹²⁰	Medical professionals are educated at the University of the West Indies and at US or Cuban medical schools A shortage of specialists exists on the islands
Current APPE ^c	None

^a GDP=Gross Domestic Product

^b OECS=Organization of Eastern Caribbean States

^c APPE=Advanced Pharmacy Practice Experience

terrain of Dominica. As emphasized above, language, food, government, and the basis of each island's existing economics were influenced by the length and extent of rule by a colonial power. The culture of those islands that were ruled by a colonial power for a longer period of time are more likely to reflect the culture and values of that ruling party. Similarly, islands that were colonized by multiple countries often display a mix of cultural influences.¹³²⁻¹³⁴ Thus, in preparing to participate in Caribbean exchanges, faculty members and students should dispel the stereotypes portrayed by media and film by learning about the history and culture of the Caribbean island they plan to travel to. Exploration of students' expectations and perceptions, coupled with a discussion on

the importance of awareness of race, gender, class, and local history, should be used to create a dialogue to dispel stereotypes about the Caribbean and its people.⁵⁵ Further, the needs and challenges of the islands should be explored with local collaborators to identify appropriate activities and learning experiences for visiting faculty members and students.

General Recommendations for Culturally Sensitive Engagement

Influence of Hierarchy. Hierarchical considerations exist regarding how health care is provided and how information is exchanged within the Caribbean. This is important because some patients may not readily

Table 6. Schools and Colleges of Pharmacy in the Caribbean^{111,121-128}

Country	College, School or University	Website	Notes
Antigua	Antigua State College, School of Pharmacy ¹²¹	http://www.asc.edu.ag/school-of-pharmacy/	Program currently under review for re-introduction
Barbados	Barbados Community College ¹²²	http://www.bcc.edu.bb/Divisions/HealthSciences/BScPharmacy.aspx	BSc Pharmacy Program
Dominica	Dominica State College ¹²³	http://dsc.dm/dscdm/images/dscdocs/brochures/dsc_pharmacist_training_program.pdf	Program offered only once; Minimum number of enrolled students required for offering
Guyana	Green Heart Medical University ¹²⁴	http://www.greenheartmed.org/school-of-pharmacy.html	Bachelor's Degree in Pharmacy (BPharm)
Jamaica	University of Technology, Jamaica ¹¹¹	https://www.utech.edu.jm/academics/colleges-faculties/cohs/school-of-pharmacy	Programs: Pharmacy Technician; Bachelor of Pharmacy; Post-Diploma Bachelors; Masters in Pharmaceutical Sciences; Doctor of Pharmacy
Jamaica; Trinidad / Tobago	University of the West Indies ^{125;126}	https://sta.uwi.edu/fms/pharmacy/index.asp ; https://www.mona.uwi.edu/fms/sites/default/files/fms/uploads/UW1%20PharmD%20Handbook%202016_April%202016.pdf	PharmD at Mona Campus in Jamaica; BSc at St. Augustine Campus in Trinidad and Tobago
Puerto Rico	University of Puerto Rico School of Pharmacy ¹²⁷	http://farmacia.rcm.upr.edu/	PharmD
Puerto Rico	Nova Southeastern Puerto Rico Campus ¹²⁸	http://www.nova.edu/campuses/puertorico/degree-programs.html	PharmD and PhD

question or correct health care practitioners.¹³⁶ Historically, feelings of mistrust of formalized health care in the Caribbean existed.^{130,136} The origination of these feelings of mistrust may stem from previous interactions with other health care practitioners in which patients experienced disrespect or felt stereotyped or stigmatized.¹³⁶ Patients expressed further discomfort when personal questions (eg, regarding their sexual history) were asked using slang terms. However, despite the existence of some level of mistrust, health care practitioners are often held in a position of esteem and respect because of their knowledge.¹³⁶ To establish a mutual relationship, the health care providers should introduce themselves, listen and address patients' needs, explain why sensitive questions are asked, and consider whether recommendations fit within patients' existing health beliefs, preferences, and practices. Taking time to determine whether the patient agrees with or intends to adhere to the care plan is also important.

Identifying care recommendations can be complex and should include a partner knowledgeable in a patient's circumstances and access to treatments and resources. For example, medication availability can differ between public and private sectors. In some countries, medication formularies and government supply may allow for only one medication per class (eg, atenolol as a beta blocker). In the private sector, multiple medications in a class

would be accessible for a fee (eg, multiple beta blockers). However, just because a medication is available, it does not mean it is accessible or affordable. Thus, care should be directed at designing interventions that promote sustainability or ability to adhere to regimens.¹³⁷ Mutual respect and reciprocal exchange of knowledge and customs and incorporation of local preferences in health care provider and academic partnerships should seek to reduce health disparity. Seeking the involvement and support of key opinion leaders such as religious or community leaders in the creation and implementation of health interventions can greatly enhance inclusion of Caribbean beliefs and cultural considerations. Their involvement cannot be emphasized enough to ensure local buy in. These partnerships enrich the care provided and help to ensure the applicability of interventions.^{135,138,139}

Awareness of the Family Role. Caribbean culture is a collectivist culture rather than individualistic. It places great importance on the group, especially the family, and as such, the family and extended family play an important role in decision-making including in decisions related to health.⁸²⁻¹⁴⁰ This can also extend to providing financial assistance, emotional support when experiencing illness, and childcare for family members with children.⁸² Puerto Ricans have often lived by the tenets of familismo (social orientation towards family values), respect (respect towards family regardless of what one believes is right or

wrong), *simpatia* (kindness, sympathy, or empathy towards others), and *personalismo* (formal friendliness). Interpersonal harmony, trust, warmth, and respect of others is fostered. Individuals also respect the authority of elders.^{141,142} The elders pass on knowledge to younger generations about traditional remedies and proverbs to cure sickness. Thus, involvement of families and having an understanding of how remedies are passed down by elders are important in understanding patients' preferences for how health information should be exchanged. This is important to recognize as patients may provide different details or express different preferences to a health care provider when alone than when in the presence of family members. Privacy within a family are central to family attitudes and behaviors.^{143,144} As such, personal or family matters are considered private, and the revelation of family matters or private knowledge to strangers is viewed with disapproval.^{145,146} Further, Caribbean people are strongly discouraged from dwelling on family or personal problems. Instead, the culture places an emphasis on perseverance and exercising control over emotions. This may be important for a visiting health care provider to know as a patient may not share relationship dynamics that are influencing their health. Furthermore, challenges the patient is having with adhering to or accessing care may not be mentioned or may be de-emphasized. Resiliency, self-reliance, and self-silencing are extensions of these cultural values.^{147,148} Self-silencing involves concern for others over oneself, thus deemphasizing personal symptoms of depression. As a result, women in particular have been known to engage in self-devaluation, which leads to symptoms of depression.^{75,143} Furthermore, patients may have fears about the negative stigma associated with seeking mental health services and receiving mental health treatment including medication. Patients may have concerns that their confidentiality may not be maintained.¹⁴⁶ When caring for women or men, these influences are important to appreciate as they can greatly impact disclosure of a patient's medical history, particularly when mental health conditions are discussed. Further, this can influence a patient's preferences about where help is sought and how care for these conditions is provided. The mental health services available to a patient may be limited, particularly those services that are preventative in nature. In many Caribbean health systems, the public hospital is the primary available location to seek mental health services. Additionally, stigma exists related to use of these mental health services. This is mentioned in the context of family dynamics as the family may be a support system in health or may hinder what information is provided and to whom. Many individuals and families have historically pursued help from religious

advisors rather than seeking treatment in a health care facility or from a provider.^{145,146}

Influence of Spirituality and Traditional Healing on Health. Religion and superstition are intertwined within many aspects of Caribbean life.^{149,150} Strong beliefs related to religious coping such as prayer during hardships and seeking God's guidance and strength are held by many and are especially common among women and married individuals who actively participate in religion.^{151,152} Beliefs in evil spirits and that an "evil eye" can trigger the development of illness still persist. Solutions pursued by patients may include finding favor with spirits. Holistically, a person and his or her surroundings are viewed as interdependent. Therefore, natural remedies and environmental changes are believed to impact health as influenced by spirits and/or God.¹⁵³ In Jamaica, *obeah* is a set of spiritual beliefs and practices that originated in Western Africa and varies by locations. Obeah is not an organized religion. Obeah involves manipulation of supernatural forces, usually with material objects, recitation of spells, divination (eg, finding lost goods, finding the cause of illness), healing and bringing good fortune, and protection from harm. Both spiritual and religious approaches may be seen by Caribbean people as important to being healthy or achieving wellness.¹⁵⁴ An example may be *demi savants*, or persons, who combine herbal lore, massage, and other techniques, who may be consulted to provide natural healing. The remedies to illness or visions of events to come are believed to be presented in dreams to these traditional healers.^{155,156}

Many Caribbean people use herbal therapies as a resource in the pursuit of health. Some believe that herbs rubbed or ingested into the body have healing properties.^{155,156} African knowledge related to herbs, plants, and foods has been passed down and is used in medicinal practices. This practice, sometimes referred to as "herbal medicine" or "bush medicine," links plants to healing.^{157,158} Common preparations include teas and essential oils. Some herbs are consumed directly.¹⁵⁷ Other traditional remedies such as bathing in hot sulfur springs are considered important to achieve good health. In addition, wellness pursued through physical activity and relaxation is often practiced.^{159,160}

Difference in Language and Definitions of Health. When delivering care, the health care provider should consider the individual and the unique setting and situation. For example, begin by asking a patient for his or her personal definition of health and wellness. Care should be taken to ask this question as the initial step prior to setting goals for patient interventions.^{161,162} Although this paper has highlighted shared similarities, differences do exist. Stereotypes or stigmatization may lead to feelings of disrespect or distrust of a health care provider by a patient.

For the pharmacist and patient relationship, in the Caribbean, it is critical for the patient to trust that the pharmacist respects or acknowledges his or her health beliefs.¹³⁶ Although English is the primary language in many Caribbean islands, certain statements have other meanings and different phrasing may be used to describe health and health issues. Making an effort to learn some common Creole phrases and paying attention to slight variances in pronunciation are also important.

Factors Influencing Availability of Health Care Resources. Many Caribbean islands encounter different challenges that may affect the delivery, access, and costs of health care. Tables 2-5 provide specifics about Dominica, Jamaica, Puerto Rico, and St. Kitts and Nevis. Important factors to consider in the delivery of care include clinic or health system structure, the availability of public or privatized insurers, the extent of coverage of care/medications, availability of a trained health care workforce, and the capacity to address population-based needs.^{13,23,24,74,77,85-87,90-119}

Recommendations for Culturally Sensitive Engagement in the Caribbean

When visiting or hosting colleagues from the Caribbean, the collaborator should not assume that his or her knowledge of one Caribbean island is applicable or universal to all islands. Sociocultural determinants of health are unique to each island. Islands have differences in specifics about languages, historical countries of colonization, and political systems.⁷ Differences in folk beliefs, in particular, may vary between countries.^{151,153,154} When discussing resources to support clinical decisions, references pertaining to natural medicine, pharmacognosy, or ethnopharmacology, in addition to drug information resources may be considered.¹⁵⁷ Concerns of spirituality or beliefs may be valued.^{155,156}

Establishing Connections. In addition to valuing spirituality, Caribbean colleagues also value taking the time to establish connections or relationships. For the provider to be overly busy, multitasking, or to seem hurried or detached, as may be common in Western culture, may come across in Caribbean countries as not being invested in the patient.¹⁴¹ When meeting with colleagues or patients, visitors should be friendly but formal at the same time at the start of a relationship. Begin the day before transitioning into business with greetings like, "Good morning!" or "Good day!" In conversation, taking the time to be polite and present shows respect. However, until relationships are solidified, avoid overly personal topics or questions, as this may be considered intrusive. Address visiting individuals by their formal titles until the friendship has matured or a sense of partnership is estab-

lished, at which point you may be able to address the person less formally. Offering a handshake is considered a display of warmth and respect and is a good gesture when greeting Caribbean colleagues.¹⁶³⁻¹⁶⁵

Partnership Formations. Hierarchy and formality considerations should be respected in the formation of relationships. This is especially important when interacting with government officials or health colleagues in the formation of more formal professional relationships as well. Visitors should dress professionally and be well groomed.

Recommendations for Culturally Sensitive Engagement When Hosting Students or Faculty From the Caribbean

Avoidance of Assumptions and Sharing of Preferences. Similar principles apply to the avoidance of assumptions when hosting students or faculty members from the Caribbean. Visiting individuals may not wish to make personal requests, but will emphasize the needs of the group instead.^{82,138,139} However, the host should still attempt to ascertain individual preferences from guests to demonstrate respect. Further, related to self-silencing as described earlier in the paper, individuals may not share or express frustrations as it may be considered inappropriate to do so.¹⁴²⁻¹⁴⁵ Concerning language, although many people from the Caribbean speak English, their word choices may be influenced by dialect or their language proficiency. Hosts should have patience when trying to understand their visitors. Accepting visitors' alternative pronunciations or word choices as influenced by dialects is respectful.^{1,54-66}

Dietary Considerations. Hosts should inquire about their guests' specific dietary needs as the Caribbean diet differs significantly from the US diet and some restrictions may exist.^{65,68} Avoiding foods with additives or preservatives, offering fresh produce or fruits, and even avoiding meats may be necessary in certain cases.^{65,68}

Concept of Time. Some business guides exist although these guides contain few references or basis to support their recommendations related to concepts of time.^{166,168} In general, the hosts should schedule appointments in advance and confirm their guests' availability as the date approaches. When confirming or exchanging potential schedules or clarifying the needs of a group prior to their visit via email, the host should use semiformal language, addressing the person by titles such as "Honorable" if British or "Doctor."

SUMMARY

Caribbean culture has been heavily influenced by past colonial rule as is manifested in the languages, religions, family structures, and government infrastructures

in the region. Caribbean islands have economies dependent on prior rulers, current partnerships, and the land (farming and mining). Although there are many similarities between the islands of the Caribbean, there are also many differences. Differences in culture between the United States and the Caribbean are particularly noticeable in health system infrastructures, languages, and folk beliefs (Tables 2-5).^{13,24,25,75,78,86-88,91-120} Developing reciprocal partnerships with Caribbean counterparts will require both parties to address any biases or misconceptions they have about the other. Strong relationships will develop when both partners learn to appreciate each other's unique contributions and identities. This will only occur by investing in cultural exploration and collaboration throughout the relationship.

ACKNOWLEDGMENTS

The authors recognize Naser Alsharif, Elias Chahine, and Lisa Brennan for their editing and suggestions regarding content.

REFERENCES

1. Steeb DR, Overman RA, Sleath BL, Joyner PU. Global experiential and didactic education opportunities at US colleges and schools of pharmacy. *Am J Pharm Educ*. 2016;80(1):Article 7.
2. Pan American Health Organization (PAHO) Pharmaceutical Policies: https://www.paho.org/hq/index.php?option=com_content&view=category&id=1265&layout=blog&Itemid=39903&lang=en. Accessed November 11, 2018.
3. Pan American Conference on Pharmaceutical Education (PCFE): https://www.paho.org/hq/index.php?option=com_content&view=article&id=8374:pharmaceutical-education&Itemid=39715&lang=pt. Accessed November 11, 2018.
4. Antilles Islands. Encyclopedia Britannica. <https://www.britannica.com/place/Antilles#ref83256>. Accessed November 11, 2018.
5. Lesser Antilles. Encyclopedia Britannica. <https://www.britannica.com/place/Lesser-Antilles>. Accessed October 2018.
6. United Nations Caribbean. Accessed November 11, 2018.
7. Hillman RS, Agostino TJ. Excerpted from understanding the contemporary Caribbean. Lynne Rienner Publishing; 2003. 1-11.
8. Alsharif NZ, Brennan L, Abrons JP, Chahine EB. Cultural sensitivity and global pharmacy engagement: introduction. *Am J Pharm Educ*. 2018;83(4):Article 7221.
9. Sastre F, Rojas P, Cyrus E, De La Rosa M, Khoury AH. Improving the health status of the Caribbean people: recommendations from the triangulating on health equity summit. *Glob Health Promot*. 2014; 21(3):19-28.
10. Lonely Planet and Beyond. Dominica - History. <https://www.lonelyplanet.com/dominica/history>. Accessed November 11, 2018.
11. Dominica, the Nature Isle. Discover the History of Dominica. <http://www.dominica.dm/index.php/history-a-culture>. Accessed November 11, 2018.
12. Kalinago Territory. <http://kalinagoterritory.com/>. Accessed November 11, 2018.
13. CIA World Factbook: Jamaica. <https://www.cia.gov/library/publications/resources/the-world-factbook/geos/jm.html>. Accessed November 11, 2018.
14. Mintz SW. Three Ancient Colonies: Caribbean Themes and Variations. Harvard University Press. 2010. London, England.
15. Spiers S, Gundala RR, Singh M. Culture and consumer behavior – a study of Trinidad and Tobago and Jamaica. *International Journal of Marketing Studies*. 2014;6(4):92-99.
16. Ramos ER. The Legal Construction of Identity: The judicials and social legacy of American colonialism in Puerto Rico. 2001. American Psychological Association. Chapter 2: Puerto Rico before 1898.
17. Malavet PA. Puerto Rico: Cultural nation, American colony. *Michigan Journal of Race Law*. 2000;6(1):1-106.
18. BBC News. Puerto Rico Profile. <http://www.bbc.com/news/world-us-canada-17139243>. Accessed November 11, 2018.
19. Ramos ER. The Legal Construction of Identity: The Judicials and Social Legacy of American Colonialism in Puerto Rico. 2001. American Psychological Association: Chapter 3 – Puerto Rico under the American Regime.
20. Encyclopedia Britannica. Puerto Rico. <https://www.britannica.com/place/Puerto-Rico>. CIA World Factbook: Puerto Rico. <https://www.cia.gov/library/publications/the-world-factbook/geos/rq.html>. Accessed November 11, 2018.
21. The United Nations. Achieving sustainable development and promoting development cooperation. Dialogues at the economic and social council. http://www.un.org/en/ecosoc/docs/pdfs/fina_08-45773.pdf. Accessed November 11, 2018.
22. Barrow Giles C. Conflict prevention & peace forum report – Regional trends in constitutional developments in the Commonwealth Caribbean. <http://www.cpahq.org/cpahq/cpadocs/Cynthia%20Barrow.pdf>. Accessed November 11, 2018.
23. CIA World Factbook Dominica: <https://www.cia.gov/library/publications/the-world-factbook/geos/do.html>. Accessed November 11, 2018.
24. CIA World Factbook: St. Kitts and Nevis. https://www.cia.gov/library/publications/resources/the-world-factbook/geos/print_sc.html. Accessed November 11, 2018.
25. Central Intelligence Agency (CIA). The World Factbook: Dominica. <https://www.cia.gov/library/publications/the-world-factbook/geos/do.html>. Accessed November 11, 2018.
26. Government of the Commonwealth of Dominica. <http://www.dominica.gov.dm/>. Accessed November 11, 2018.
27. Payne A. After bananas: the IMF and the politics of stabilization and diversification in Dominica. *Bulletin of Latin American Research*. 2008;27(3):317-332.
28. Invest Dominica. Government. <http://www.investdominica.com/country-profile-of-the-commonwealth-of-dominica/government/>. Accessed November 11, 2018.
29. Government of Jamaica. <https://www.gov.jm/government>. Accessed November 11, 2018.
30. The Official Website of St. Kitts and Nevis. <https://www.gov.kn>. Accessed November 11, 2018.
31. World Bank Data. GDP. <https://data.worldbank.org/>. Accessed November 11, 2018.
32. World Bank Data. GDP Per Capita. <https://data.worldbank.org/indicator/ny.gdp.pcap.cd>. Accessed November 11, 2018.
33. Investopedia: Per Capita GDP. <https://www.investopedia.com/terms/p/per-capita-gdp.asp>. Accessed November 11, 2018.
34. Investopedia: Gross Domestic Product (GDP). <https://www.investopedia.com/ask/answers/what-is-gdp-why-its-important-to-economists-investors/>. Accessed November 11, 2018.
35. Rolfe J. Many small states, two regions, different constructions. *Social and Economic Studies*. 2007;56(1/2):96-134.

36. US Department of State. US Relations with Dominica fact sheet from February 28, 2017. <https://www.state.gov/r/pa/ei/bgn/2295.htm>. Accessed November 11, 2018.
37. Dominica and Cuba celebrate 20 years of diplomatic relations. May 19, 2016. <https://www.dominicavibes.dm/news-201981/>. Accessed November 11, 2018.
38. Government of the Commonwealth of Dominica. Dominica and the People's Republic of China celebrate 10th anniversary of diplomatic relations. <http://www.opm.gov.dm/?p=374>. Accessed November 11, 2018.
39. Government of the Commonwealth of Dominica. New British HC. January 24, 2014. <http://www.opm.gov.dm/?cat=2&paged=2>. Accessed October 20, 2018.
40. US Department of State. US Relations with Jamaica. <https://www.state.gov/r/pa/ei/bgn/2032.htm>. Accessed November 11, 2018.
41. US Department of State. US Relations with St. Kitts and Nevis. <https://www.state.gov/r/pa/ei/bgn/2341.htm>. Accessed November 11, 2018.
42. Government of the Commonwealth of Dominica. Post-Disaster Needs Assessment Hurricane Maria. September 18, 2017. <https://reliefweb.int/sites/reliefweb.int/files/resources/dominica-pdna-maria.pdf>. Accessed November 11, 2018.
43. Discover Dominica. Dominica Updates. <http://dominicaupdate.com>. Accessed November 11, 2018.
44. Dominica Vibes online. Cuba agrees for extended stay of electricity linesmen in Dominica. February 20, 2018. <https://www.dominicavibes.dm/news-238515/>. Accessed November 11, 2018.
45. The Guardian. Caribbean travel update. <https://www.theguardian.com/travel/2017/nov/26/caribbean-travel-update-after-hurricanes-how-islands-recovering-barbuda-puerto-rico>. Accessed November 11, 2018.
46. The Guardian. Irma's destruction: island by island. <https://www.theguardian.com/world/2017/sep/07/irma-destruction-island-by-island-hurricane>. Accessed November 11, 2018.
47. International Medical Corps. Hurricane response 2017. <https://internationalmedicalcorps.org/emergency-response/hurricane-irma/>. Accessed November 11, 2018.
48. Direct Relief. Hurricane response 2017. <https://www.directrelief.org/2017/10/hurricane-response-medicines-distributed-puerto-rico-caribbean/>. Accessed November 11, 2018.
49. Shultz JM, Kossin JP, Sherperd M, et al. Risk, health consequences, and response challenges for small-island-based populations: Observations from the 2017 Atlantic hurricane season. *Disaster Med Public Health Prep*. 2018;April: 1-13.
50. UN News. UN chief lauds Dominica's vision to become the first climate-resilient nation after recent devastation. <https://news.un.org/en/story/2017/10/568042-un-chief-lauds-dominicas-vision-become-first-climate-resilient-nation-after>. Accessed November 11, 2018.
51. Relief Web Report – Dominica: Emergency plan of operation: <https://reliefweb.int/report/dominica/dominica-hurricane-maria-emergency-plan-action-operation-update-n-3-mdrdm003>. Accessed November 11, 2018.
52. How is healthcare in Puerto Rico following Hurricane Maria? No one knows. *The Washington Post*. https://www.washingtonpost.com/news/posteverything/wp/2018/04/18/how-is-health-care-in-puerto-rico-after-hurricane-maria-no-one-knows/?noredirect=on&utm_term=.2e7835ae1854. Accessed November 11, 2018.
53. Patzelt C. Language contact and linguistic imperialism in the Caribbean. *Crossroads*, 2009;3(2):110-119.
54. Orlando V. Cypress S. Reimagining the Caribbean: conversations among the Creole, English, French and Spanish Caribbean. Copyright 2014. Lexington Books.
55. Countries and their cultures. <http://www.everyculture.com/Cr-Ga/Dominica.html>. Accessed November 11, 2018.
56. Siegel J. Literacy in Pidgin and Creole language. *CILP*. 2005;6(2): 143-163.
57. Wigglesworth G, Billington R, Loakes D. Creole speakers and standard language education. *Lang Linguist Compass*, 2013;388-397.
58. Fontaine MD. Dominica's Diksyonne-Kweyol-Anggle-English-Creole dictionary. Copyright 2003.
59. Carrington LD. The Status of Creole in the Caribbean. *Caribbean Quarterly*. 1999;45(2):41-51.
60. Carpenter K, Devonish H. Swimming Against the Tide: Jamaican Creole in education in Migge B, Leglise I, Bartens Creoles in Education: An appraisal of current programs and projects; 2010. John Benjamins Publishing Company. 167-181.
61. Email communications – Local expert, Orrin Jolly. 2018.
62. Velez JA. Understanding Spanish-language maintenance in Puerto Rico: political will meets the demographic imperative. *Intl J Soc Lang*. 2000;142:5-24.
63. Encyclopedia of Puerto Rico. Language of Puerto Rico. <https://enciclopedia.pr.org/en/encyclopedia/language-of-puerto-rico/#1465191389354-0f4f0f38-6227>. Accessed November 11, 2018.
64. Ardila A. Spanglish: An Anglicized Spanish dialect. *Hispanic J Behav Sci*. 2005;27(1):60-81.
65. Beushausen W. Caribbean food cultures: Culinary practices and consumption in the Caribbean and its diaspora. Transcript Verlag. Copyright 2014.
66. Garth H. Food and identity in the Caribbean. A&C Black. Copyright 2013.
67. Crask P. Dominica: Bradt Travel Guide, Copyright 2007 Bradt Travel Guides Ltd.
68. Discover Dominica Dining. February 2017. <http://www.dominica-weekly.com/online-news/dominica-dining/>. Accessed November 11, 2018.
69. Center for Disease Control (CDC) Travelers' Health. <https://wwwnc.cdc.gov/travel>. Accessed November 11, 2018.
70. Travel.State.Gov. International Travel. <https://travel.state.gov/content/travel/en/international-travel.html>. Accessed November 11, 2018.
71. Cases JA, Dachs NW, Bambas A. Health disparities in Latin America and the Caribbean: The role of social and economic determinants. *Equity Health*. 2001;8:22-49.
72. Bidulescu A, Francis DK, Ferguson TS, et al. Disparities in hypertension among black Caribbean populations: a scoping review by the US Caribbean Alliance for Health Disparities Research Group (USCAHDR). *Int J Equity Health*. 2015 December;14(1):125.
73. Rutledge SE, Abell N, Padmore J, McCann. AIDS Stigma in health services in the Eastern Caribbean. *Sociol Health Illn*. 2009;31(1):17-34.
74. Perreira K, Peters R, Lallemand N, Zuckerman S. Puerto Rico health care infrastructure Assessment - site visit report. Urban Institute: elevate the debate. January 2017. https://www.urban.org/sites/default/files/publication/87011/20001050-puerto-rico-health-care-infrastructure-assessment-site-visit-report_1.pdf. Accessed November 11, 2018.
75. Soyibo AK, Roberts L, Barton EN. Chronic kidney disease in the Caribbean. *West Indian Med J*. 2011;60(4): 464-470.
76. Martinez KG, Acosta Perez E, Ramirez R, Canino G, Rand C. The role of caregivers' depressive symptoms and asthma beliefs on

asthma outcomes among low-income Puerto Rican children. *J Asthma*. 2009.

77. World Health Organization. WHO-AIMS Report on Mental Health Systems in the Caribbean. 2011. http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=21325&Itemid=1&lang=en. Accessed November 11, 2018.

78. Whitley R, Hickling FW. Open papers, open minds? Media representations of psychiatric de-institutionalization in Jamaica. *Transcult Psychiatry*. 2007.

79. Arthur CM, Hicklink FW, Robertson-Hickling H, Haynes-Robinson WA, Whitley R. "Mad, sick, head nuh good": Mental illness stigma in Jamaican communities. *Transcult Psychiatry*. 2010;47(2):252-275.

80. Altink H. Modernity, race, and mental health care in Jamaica. C, 1918-1944. *J Depart Behavioural Sciences*. 2012;2(1):1-19. https://journals.sta.uwi.edu/jbs/articles/JDBS_Vol1_No2.pdf. Accessed November 11, 2018.

81. Bernard GS. Major trends affecting families in Central America and the Caribbean. Major trends affecting families: A background document. 2003 May 23;128.

82. Mitchell NA. School-family-community partnerships: Strategies for school counselors working with the Caribbean immigrant families. *ASCA School Counseling*. 2007;400-409.

83. Jackson JS, Forsythe-Brown I, Govia IO. Age cohort, ancestry, and immigrant generation influences in family relations and psychological well-being among Black Caribbean family members. *Journal of Social Issues*. 2007;63(4):729-743.

84. Center for Disease Control (CDC). The Global HIV/AIDS Pandemic, 2006. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5531a1.htm>. Accessed November 11, 2018.

85. WHO Country Profile: Dominica. <http://www.who.int/countries/dma/en/>. Accessed November 11, 2018.

86. WHO Country Profile: Jamaica. <http://www.who.int/countries/jam/en/>. Accessed November 11, 2018.

87. WHO Country Profile: St. Kitts and Nevis. <http://www.who.int/countries/kna/en/>. Accessed November 11, 2108.

88. Caribbean Public Health Agency (CARPHA). <http://carpha.org/what-we-do/laboratory-services-and-networks/crs>. Accessed November 11, 2018.

89. World Health Organization (WHO). Report on the status of pharmaceutical situation in the Caribbean. <http://apps.who.int/medicinedocs/documents/s17562en/s17562en.pdf>. Accessed November 11, 2018.

90. Pan American Health Organization (PAHO): Dominica Health System Profile. 2002. http://www1.paho.org/hq/dmdocuments/2010/Health_System_Profile-Dominica_2002.pdf. Accessed November 11, 2018.

91. United States Agency for International Development (USAID). Dominica Caribbean Region HIV and AIDS service provision assessment survey 2006. <https://www.measureevaluation.org/resources/publications/tr-07-48/at.../document>. Accessed November 11, 2018.

92. Dominica Government. Dominica Medical Act. 39.02. <http://www.dominica.gov.dm/laws/chapters/chap39-02.pdf>. Accessed November 11, 2018.

93. University of Iowa College of Pharmacy. Dominica Rotation. <https://pharmacy.uiowa.edu/dominica>. Accessed November 11, 2018.

94. Correspondence with Orrin Jolly Rotation Preceptor – Dominica rotation for the University of Washington. June 2018.

95. Jamaica Information Service, June 1, 2012. <http://jis.gov.jm/jamaica-has-proud-track-record-in-healthcare-delivery/>. Accessed November 11, 2018.

96. Campbell A. The abolition of user fees in the Jamaican public health system: impact on access, care provided and the work of the professional nurse. <http://researcharchive.vuw.ac.nz/xmlui/bitstream/handle/10063/2718/thesis.pdf?sequence=2>. Accessed November 11, 2018.

97. Sagicor Jamaica. <https://www.sagicorjamaica.com/person/insurance/govt-sponsored-schemes-and-plans>. Accessed November 11, 2018.

98. Pan American Health Organization (PAHO): Jamaica health system profile 2001. http://www1.paho.org/hq/dmdocuments/2010/Health_System_Profile-Jamaica_2001.pdf. Accessed November 11, 2018.

99. Pan American Health Organization (PAHO). Health in the Americas, 2012. country volume: Jamaica. https://www.paho.org/salud-en-las-americas-2012/index.php?option=com_docman&view=download&category_slug=hia-2012-country-chapters-22&alias=136-jamaica-136&Itemid=231&lang=en. Accessed November 11, 2018.

100. National Health Fund. <http://www.nhf.org.jm/index.php/aims-objectives>. Accessed November 11, oe 2018.

101. Jamaican Government. Dangerous Drug Act. <http://moj.gov.jm/sites/default/files/laws/The%20Dangerous%20Drugs%20Act.pdf>. Accessed November 11, 2018.

102. Jamaica Information Service-Drug Act. <https://jis.gov.jm/features/dangerous-drugs-act-facts/>. Accessed November 11, 2018.

103. World Bank. Realizing rights through social guarantee: The case of Jamaica. <http://siteresources.worldbank.org/EXTSOCIALDEV/Resources/3177394-1168615404141/3328201-1192042053459/Jamaica.pdf?resourceurlname%20=Jamaica.pdf%20Accessed%209%20November%202017>. Accessed November 11, 2018.

104. Caprio C. World Bank: Health workforce in Latin America and the Caribbean. <https://openknowledge.worldbank.org/bitstream/handle/10986/22027/9781464805943.pdf?sequence=1>. Accessed November 11, 2018.

105. Jamaica Medical Council. Jamaica Medical Act. http://jamaicamedicalcouncil.org/wp-content/uploads/2018/06/Medical-Act_1.pdf. Accessed November 11, 2018.

106. Jamaica Medical Council. National Council for Continuing Medical Education. <http://jamaicamedicalcouncil.org/nccme/>. Accessed November 11, 2018.

107. Pharmacy Council of Jamaica. <http://www.pcoj.org/>. Accessed November 11, 2018.

108. Pan American Health Organization. Pharmaceutical situation in Jamaica. http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=19301&Itemid=270&lang=en. Accessed November 11, 2018.

109. diGJamaica.com. Pharmacist day - more just medication dispenser. <http://digjamaica.com/blog/2016/01/13/pharmacist-day-more-than-just-a-medication-dispenser/>. Accessed November 11, 2018.

110. University of Technology Jamaica. <http://www.utechjamaica.edu.jm/>. Accessed November 11, 2018.

111. University of Iowa College of Pharmacy. Jamaica rotation. <https://pharmacy.uiowa.edu/jamaica>. Accessed November 11, 2018.

112. University of Buffalo School of Pharmacy Experiential Education. <https://pharmacy.buffalo.edu/academic-programs/experiential-education.html>. Accessed November 11, 2018.

113. Southern Illinois in Evansville. School of Pharmacy. <https://www.theintelligencer.com/local/article/SIUE-students-inspired-by-mission-trip-to-Jamaica-10442526.php>. Accessed November 11, 2018.
114. University of Sciences. <https://www.usciences.edu/news/2016/students-learn-the-importance-of-interdisciplinary-care-during-medical-mission-trip-to-jamaica.html>. Accessed November 11, 2018.
115. PAHO / USAID. Health system profile: Puerto. 2007. http://www1.paho.org/hq/dmdocuments/2010/Health_System_Profile-Puerto_Rico_2007.pdf. Accessed November 11, 2018.
116. Global Health Observatory. Current health expenditures as percentages of gross domestic product (GDP) by country. <http://apps.who.int/gho/data/node.main.GHEDCHEGDPSHA2011?lang=en>. Accessed November 11, 2018.
117. University of Michigan College of Pharmacy. <https://pharmacy.umich.edu/scio/international-opportunities>. Accessed July 10, 2018.
118. University of Maryland School of Pharmacy. <https://www.pharmacy.umaryland.edu/preceptors/rotationprocess/>. Accessed September 19, 2018.
119. Pan American Health Organization (PAHO): St. Kitts and Nevis health system profile. 2008. http://www1.paho.org/hq/dmdocuments/2010/Health_System_Profile-Saint-Kitts_Nevis_2008.pdf. Accessed November 11, 2018.
120. Antigua State College School of Pharmacy. <http://www.asc.edu.ag/school-of-pharmacy/>. Accessed November 11, 2018.
121. Barbados Community College. <http://www.bcc.edu.bb/Divisions/HealthSciences/BScPharmacy.aspx>. Accessed November 11, 2018.
122. Dominica State College. http://dsc.dm/dscdm/images/dscdocs/brochures/dsc_pharmacist_training_program.pdf. Accessed November 11, 2018.
123. GreenHeart Medical University. <http://www.greenheartmed.org/school-of-pharmacy.html>. Accessed November 11, 2018.
124. University of West Indies. <https://sta.uwi.edu/fms/pharmacy/index.asp>. Accessed November 11, 2018.
125. University of West Indies Mona Campus specific site. <https://www.mona.uwi.edu/>. Accessed November 11, 2018.
126. University of Puerto Rico School of Pharmacy. <http://farmacia.rcm.upr.edu/>. Accessed November 11, 2018.
127. Nova Southeastern Puerto Rico Campus. <http://www.nova.edu/campuses/puertorico/degree-programs.html>. Accessed November 11, 2018.
128. Caribbean Pharmacists Association. Benefits of membership. <https://ww2.cap-pharmacists.com/membership/>. Accessed November 11, 2018.
129. Caribbean Public Health Agency. Safeguarding our future development. http://www.archive.healthycaribbean.org/newsletters/nov-2014/CARPHA_Plan_Healthy_Weights_10.pdf. Accessed November 11, 2018.
130. Hernandez-Ramdwar C. Challenging negative stereotyping and monolithic constructions through Caribbean studies. *Caribbean Quarterly*. 2005;51(3/4):77-85.
131. Clarke C. Colonialism and its social and cultural consequences in the Caribbean. *J Lat Am Cult Stud*. 1983;15(2):491-503.
132. Lewis G. The social legacy of British Colonialism in the Caribbean. *New World Journal*. <https://newworldjournal.org/independence/the-social-legacy-of-british-colonialism-in-the-caribbean/>. Accessed November 11, 2018.
133. Feyrer J, Sacerdote B. Colonialism and modern income: Islands as natural experiments. *The Review of Economics and Statistics*. 2009 May 1;91(2):245-262.
134. Alcaraz KI, Sly J, Ashing K, et al. The ConNECT Framework: a model for advancing behavioral medicine science and practice to foster health equity. *J Behav Med*. 2017;40(1):23-38.
135. Archibald C. Cultural tailoring for an Afro-Caribbean community. A naturalistic approach. *J Cult Divers*. 2011;18(4):114-119.
136. Willie-Tyndale D, McKoy Davis J, Holder-Nevins D, et al. Predictors of health service utilization among older men in Jamaica. *Journals of Gerontology*. <https://doi.org/10.1093/geronb/gbx168>. Accessed November 11, 2018.
137. Bakombo S. Cultural sensitivity in diabetic interventions among African and Caribbean immigrants in Canada: A systematic review. Doctoral dissertation, Université d'Ottawa/University of Ottawa. https://ruor.uottawa.ca/bitstream/10393/36627/1/Bakombo_Schwab_2017_thesis.pdf. Accessed November 11, 2018.
138. Pan American Health Organization. Promoting health communication in the Caribbean. https://www.paho.org/ecc/index.php?option=com_docman&view=download&category_slug=publications&alias=3-communicating-health-in-the-caribbean-2000&Itemid=154. Accessed September 19, 2018.
139. Chioneso NA. Expressions of African/Caribbean cultural roots in Canada. *J Black Stud*. 2008;39(1):69-84.
140. Carteret M. Cultural values of Latino patients and families. <https://www.dimensionsofculture.com/2011/03/cultural-values-of-latino-patients-and-families/>. Accessed November 11, 2018.
141. Mogro-Wilson C. Parenting in Puerto Rican families. *Fam Soc. January* 2013. Accessed November 11, 2018.
142. Gary PB, Brown E. Fatherhood in St. Kitts: Patterns and predictors of partnership and parental dynamics in a Caribbean island. *Fathering*. 2015;13(1):18-32.
143. Case AD, Gordon DM. Contextualizing the health behavior of Caribbean men. Caribbean psychology: Indigenous contributions to a global discipline. Washington, DC: American Psychological Association. 2016.
144. Greenidge WL, Daire AP. The relationship between emotional openness and the attitudes towards seeking professional counseling of English-speaking Caribbean college students. *Int J Adv Counseling*. 2010;32:191-201.
145. Greenidge WL. Help-seeking attitudes and behaviors of English-speaking Caribbean college students: a review of the literature and implications for clinical practice. Ideas and research you can use: VISTAS, 2016. Article 58: https://www.counseling.org/docs/default-source/vistas/article_5858f227f16116603abcacff0000bee5e7.pdf?sfvrsn=4. Accessed September 2018.
146. Ali A, Toner BB. Symptoms of depression among Caribbean women and Caribbean-Canadian women: an investigation of self-silencing and domains of meaning. *Psychol Women Q*. 2001;25:175-180.
147. Schreiber R, Stern PN, Wilson C. The context for managing depression and its stigma among black West Indian Canadian Women. *J Adv Nursing*. 1998;27:510-517.
148. Superville DJ. Caribbean Blacks and acculturative stress: The moderating role of religious coping. Dissertation for Doctor of Philosophy Degree – Bowling Green State University, 2014. https://etd.ohiolink.edu/etd.send_file?accession=bgsu1376509654&disposition=inline. Accessed November 11, 2018.
149. Chatters LM, Taylor RJ, Bullard KM, Jackson JS. Spirituality and subjective religiosity among African Americans, Caribbean Blacks and Non-Hispanic Whites. *J Sci Study Relig*. 2008;47(4):725-737.

150. Chatters LM, Taylor RJ, Jackson JS, Lincoln KD. Religious coping among African Americans, Caribbean Blacks, and Non-Hispanic Whites. *J Community Psychol*. 2008;36(3): 371-386.
151. Taylor RJ, Chatters LM, Mattis JS, Joe S. Religious involvement among Caribbean Blacks in the United States. *Rev Relig Res*. 2010;52(2):125-145.
152. Bakic-Miric NM, Gogic AS, Bakic NM. Conceptual framework for communicating health and illness across cultures. *Vojnosanitetski Pregled*. 2012;69(3):260-264.
153. Bilby KM, Handler JS. Obeah: Healing and protection in West Indian slave life. *J Caribbean History*. 2004;38(2):153. <https://www.questia.com/library/journal/1P3-882999221/obeah-healing-and-protection-in-west-indian-slave>. Accessed November 11, 2018.
154. Taylor D. Carib folk-beliefs and customs from Dominica, B.W.I. *Southwestern J Anthropology*. 1945;1(4):507-530. <https://www.jstor.org/stable/pdf/3628796.pdf?refreqid=excelsior%3Ae515e79f1838be4f43d4f018f7519ce3>. Accessed November 11, 2018.
155. Sanford R. Three Nights Late, The Soukouyan on the foof and other stories. Copyright 2016. Self Published.
156. Morebise O. Medicinal plants of Dominica – Uses, chemical constituents, bioactives and prospects. *JMPR*. 2015; 3(5):144-154.
157. Quinlan MB, Quinlan RJ. Modernization and Medicinal Plant Knowledge in Caribbean Horticultural Village. *Medical Anthropology Quarterly*. 2018;21(2):169-192.
158. Meyer M. Since I know myself: A cultural examination of medicinal plant use in the Commonwealth of Dominica. University of New Mexico Digital Repository. 2014. https://digitalrepository.unm.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1021&context=geog_etds. Accessed November 11, 2018.
159. Patel M. Medicinal plant use in Dominica. 2005. https://aglifesciences.tamu.edu/dominica/wp-content/uploads/sites/54/2017/09/Patel_Megha.pdf. Accessed November 11, 2018.
160. The World Bank. Promoting healthy living in Latin America and the Caribbean. <https://openknowledge.worldbank.org/bitstream/handle/10986/16376/9781464800160.pdf> . Accessed November 11, 2018.
161. Aarons DE. Medicine and its alternatives: health care priorities in the Caribbean. *The Hasting Center Report*. 1999;29(4):23-27.
162. Etiquette and customs in Jamaica. <https://www.commisceo-global.com/resources/country-guides/jamaica-guide>. Accessed November 11, 2018.
163. Caribbean dining etiquette. https://www.etiquettescholar.com/dining_etiquette/table-etiquette/caribbean_table_manners/jamaican.html. Accessed November 11, 2018.
164. Lonely Planet. Caribbean etiquette. <https://www.lonelyplanet.com/caribbean/etiquette>. Accessed November 11, 2018.
165. Brandenburg D. Jamaica business etiquette. <https://bizfluent.com/about-6589140-jamaica-s-business-etiquette.html>. Accessed November 11, 2018.
166. The Lett Group. Etiquette in the Caribbean. <http://lettgroup.com/international-etiquette-tips/etiquette-in-caribbean/>. Accessed November 11, 2018.